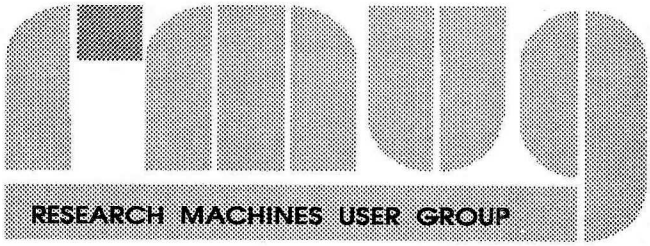
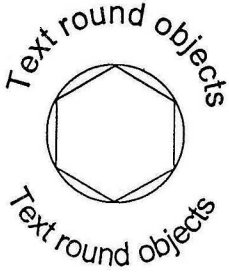
RM User

Volume 7:2

July 1992



Desktop Publishing The Easy Way



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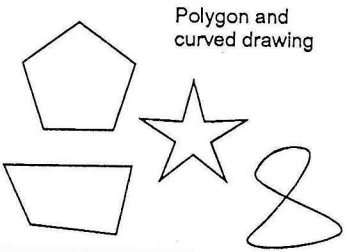

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Simple to use, supports 300 printers including HP PaintJet and DeskJet 500 and 500C colour, Includes 100 scalable graphics, import .PCX .TIF .GIF .CUT - add scanned images.
14 fully scalable fonts with shadows, patterns and outlines.
£60 + VAT upgrade from PrintMaster Plus £45 + VAT
Requires hard disc, optional mouse
PC286/386 recomended. Integrex printers not supported.
Works on 186 in B/W on screen but prints in colour

LTS, Haydon House, Alcester Road, Studley, Warks B80 7AN
Tel 0386 792617 FAX 0386 793147

The User Group exists to help its members use the computers which they have.

Many of you (about 20%) are home users of Nimbus computers and we would like to help you. On page 28 Mary Mabey has contributed an article which lists some of the software which you may like to use if you have young children. Mary has also kindly agreed to let us publish her phone number; you may call her at home on 081 698 7573 if you want some advice on using your computer.

You may find that you have a problem which you feel is too trivial for Customer Support or you may have a problem with which they can't help, perhaps because you have a non-standard setup for your equipment or you are using third-party equipment. This is the time when we may be able to help.

Remember that you can telephone the User Group members in the evening or at weekends when RM is shut (and, of course, you are just bound to hit problems). Also, RM don't claim to have great knowledge of products which they don't produce such as Excel or PageMaker. They can tell you how to install the packages on their equipment and how to get started but they cannot be expected to give you in depth support on using the packages. We, on the other hand, can. Most of the people whose phone numbers are listed at the back are using the contents of the educational software library on a daily basis. We may have met exactly the problem you have just encountered.

Help!

If you are in difficulty, please feel free to ring anybody on the Committee. It is a great help if you are having a problem doing something using your computer if you can be next to it when you phone because it may then be possible to talk you through a solution over the phone.

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Two magazines?

For a trial period we are sending two magazines to those people who have paid the standard £15 subscription. We are hoping that you will give the spare copy to a colleague who might be interested in joining so that they can see some of what the User Group has to offer. Please let the membership secretary know if you do not want to receive a second copy (write to RMUG, Freepost, London W12 0BR or phone 081 740 5642)

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News and Editorial

Price Changes

Just after the last issue went to press RM released a new catalogue which contains a number of price changes and alterations to their range. Although the PC186 is still available I cannot see it being a popular choice except for people wanting to buy just a small number of new machines to supplement an existing installation so, as previously mentioned, the 20MHz PC386 is now effectively the entry level machine. Unfortunately, it is currently the only machine! No faster 386SX, no 486SX or 486DX (except in the larger X series machines or System Base machines). I know that all these machines would be more expensive but they are also the machines which are likely to have the longest usable life. When I buy computers for school I really want to buy machines which will be useful in quite a few years time. Microsoft are recommending now that a 386SX with 4Mb of RAM is the minimum machine for running Windows 3.1 so who knows what will be needed in 3 years time.

I'm also not terribly impressed by the price of these computers. If you must have PC186 mode support (and this is important for quite a few users) then there is no other choice, but if this is not a prime consideration then it is possible to buy a similarly specified standalone machine for a lot less money.

If you are buying a network then the situation is a lot less clear. RM make comparisons rather difficult by including a large amount of software in the price of the server but also charging a premium on the price of each station to cover the costs of RM NetLM. I've done the sums for my school and this year I'm buying a new System Base server and some stations from RM (or at least I'm trying to. My order was placed early in April and I'm now promised a delivery date in mid July; I keep forgetting to ask which July that will be!)

The advantage of buying from a company like RM is that they have put an enormous amount of work into developing what they see as an excellent network and they also make great efforts to support it. The disadvantage is that you are tied to RM. If you don't like what they do next then it's just tough. It would be very expensive to swap to another supplier, assuming you are using Ethernet; if you're using Z Net then a swap is simply not realistic.

RM have been getting good write ups in other publications; *PC User* mentioned their Windows network and said "RM has an excellent opportunity with this - there's nothing else as good as this product around at the moment." I understand that some of the work which RM did on developing Net LM has actually been sold back to Microsoft so that they can actually make Windows work properly on networks. Well done, RM!

InSITE

I have already mentioned the RM InSITE program and more information about this has probably reached you recently if you have an RM Network. In brief, RM are now attempting to provide what is sometimes called "total facilities management". This means that they

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will not just sell you boxes but come into school, advise on what you need, install cabling, install the computers, maintain everything and review it all on a regular basis to make sure that you continue to get the best out of the setup. You obviously have to pay for all this but it could save you money in the long run. If it is all reasonably priced and works well then this does seem like a good idea.

Notebooks

On a more positive note, RM have announce the NB360. This is a Notebook with 25MHz 386 processor, 60Mb drive and 2Mb of RAM. Windows 3 (possibly 3.1 by now; see below) and DOS 5 are included in the price of £1199 but unfortunately a mouse is not included as standard. This is a good price for a notebook computer and if the display is as good a quality as the earlier notebooks then it should be a success.

Another welcome addition to the range is the Window Box, a computer particularly aimed at primary schools and younger users. This is a PC386 with 40 or 80Mb disc, 2Mb of RAM, Windows 3, Word for Windows and Excel. The last two packages are in specially adapted versions (I presume simply with some of the less useful options removed from the menu and some extra macros added to make the programs easier to use). The 40Mb version comes in at £1449 and the 80Mb at £1599.

Excel Starting Grid is a special version of Excel which adds colour coded buttons to allow users to choose two levels which are simpler than the normal Excel starting point. It is designed to link closely with First Word for Windows so that pupils can move spreadsheet tables into their word processed text. It is priced at just £90 (or £60 if you already have Excel 3) which is excellent. I find it quite mind blowing to think that primary school children are using the same packages which some of A Level students rarely work with but I welcome it as a very good move which can only enhance the children's education.

Windows 3.1

I mentioned Windows 3.1 briefly in the last magazine and it "will be introduced across the whole range of RM systems ... and the RM NetLM network -during the summer" according to RM. It is also available as an upgrade product from RM at £39 for one copy, £199 for 10 and £700 for 50 copies. I understand that it will be back-shipped to customers who have ordered NetLM servers after the announcement date but whose servers are delivered before it is shipped. If you have a standalone machine it may be a very worthwhile upgrade, particularly if you have a dot matrix or ink jet printer. The True Type fonts will give much better print than you have been used to and the new print manager will let you get on much faster. The fact that it crashes less frequently is also welcome (and when it does crash you tend to lose only the one faulty application rather than the whole machine).

CDROM News

The Guardian has been available on CD ROM for some time but has had a user interface which is best described as quirky. Now, however, it has the same interface as The Times which makes it far easier to use. Both papers cost the same for standalone use (£195 for a four disc subscription lasting for a year) but The Times costs a further

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£70 for network use on up to 16 stations whereas The Guardian may be used on one site on any number of stations. Details from Chadwick Healy on 0223 311479 for The Guardian and from The Times Network Systems on 071 782 7136 for The Times.

A new Windows and multi-media version of the Grolier Encyclopaedia is now available. The Windows version will run on a 286 PC with 2Mb of memory but really needs a 386 with 4Mb. There is an attractively priced upgrade available if you already have an early version of Grolier. I've not had a chance to look at it yet but more details are available from Optech on 0252 714340.

RM have also been busy in the CD ROM field. The biggest launch is the integration of CD ROM with Windows under RM Net LM. If you buy a new CD server then it will be a 386 machine with 4Mb of memory, one fairly fast CD drive and 4 discs; Information Finder, the Library of the Future, the Times and World Facts, all for ú2299. The Windows front end and install routine are also available for existing CD ROM servers; details from RM. Information Finder is a major encyclopaedia, intended to be more accessible to younger users. I think it will be available as a separate application for those who already have a CD server but RM don't yet have a price; it should be fixed by the time you read this. RM have also announced the Software Toolworks Reference Pack which contains 3 discs; Reference Library, Timetable of History - Science and Innovation and the Time Magazine Compact Almanac. The first of these actually contains 8 books, including Webster's standard dictionary, a dictionary of Quotable Definitions, and a Thesaurus. All 3 discs are available for standalone use for £99 and include easy to use installation programs. I have no price for network use.

Interactive Video is one of those areas which seems very promising. RM have recently supplied 17 systems comprising a PC386 with 40Mb hard drive, Laser Vision player and bar code reader to the National Council for Educational Technology to trial the use of some IV applications in primary schools. One of the problems with IV is that it is quite expensive to develop materials and there also seems to be no fixed standard for the systems as yet. Philips, for example, have just launched their CD-I system which is particularly aimed at domestic use but could have educational uses and Commodore have their CDTV. Neither can contain as much moving video as the Laser Vision player but if they catch on then I'm afraid that Laser Vision will fail (in the same way as the well marketed but technically poorer VHS system for video beat the Betamax and V2000 systems).

Excel 4

RM will eventually be shipping this with networks and should by now be selling the standalone version. It adds a mass of new features, most of which are designed to make the product easier to use. This follows the launch of Word 2 with its heavy emphasis on useability. If you want information on upgrading a standalone copy of Excel 3 (or other spreadsheet) to Excel 4 then contact the Microsoft upgrade centre on 081 893 8000). They also have some special

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education upgrade prices which they don't seem to mention unless you ask.

Acorn versus RM!

For years these two companies have each claimed marked leadership in the education sector, both probably correctly (because they measure different things!) In terms of value of sales into education, RM's published accounts show that RM now sells more into education than Acorn sells in total, a massive reversal of the position just 5 years ago when RM's sales into education were about one third of Acorn's total sales. RM's strength is to be welcomed; there are many schools depending on them to keep their systems working, but it is a shame to see Acorn floundering. I think that the Archimedes is an excellent although somewhat odd computer.

For a long time now I've believed that schools should offer their pupils software which is as similar to that they will meet in work. I don't think this because I see schools in the business of industrial training but because it must help anyone to work confidently with computers if they use similar software all the time. Bearing this in mind, then, it means that schools must buy computers which are IBM compatible. The Archimedes is a very fast computer with superb graphics which can also emulate a PC at a quite reasonable speed but it's not a PC!

I've been using the Netlog program for quite some time now and I'm pleased to say that a Windows version of it now exists. The part which benefits most from the move to Windows is the Who program (which tells you who is currently logged on to the network). Because it runs under Windows it can be left running all the time you are working in Windows and a quick click on it gives you an instant list of who is using the system. The full package costs £29.50 but you can upgrade if you have the DOS version for just half of that. Details from Edhitec on 0423 871027.

Edhitec are also now selling the Kyocera FS 1500 page printer (it's not a laser printer because it uses an LED array but the effect is the same). This is advertised as being environmentally friendly and having low running costs. Both features are, in fact, due to the same thing. The Kyocera has a high strength amorphous silicon drum which is designed to not wear out. This means that you just have to add toner approximately every 5000 sheets. This particular printer is also expandable with extra paper trays (if you fit all the possible trays you end up with something nearly as tall as a filing cabinet but it is able to handle all your printing needs) and it can emulate almost any major printer you might want to use. It seems like a really good idea; more details from Edhitec (0423 871027)

Edhitec are also offering the student edition of dBASE IV for just £39.95. This has all the facilities of the full package but can only handle up to 120 records. This is fine for most teaching purposes and if you want to look at a solid DOS based database then this is and industry standard package.

I still find hand scanners much more versatile than flat bed ones (and pupils certainly find them much quicker and easier to use) so I was pleased to get details of a new software package to go with the Logitech scanner. The AutoStitch facility will fix together up to 4 scan widths to give one perfect picture. More details from Logitech on 0344 891313.

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Letters to the Editor

My school is at present considering whether or not to continue using ILECC's services following our move to LMS and service level agreements. Whe have no complaints about the quality of ILECC's service, but for a primary school with over 20 computers plus a multitude of peripherals the cost is quite heavy even allowing for the fact that many of our computers are still within their warranty period.

One option my headteacher has been considering is whether to establish a "contingency fund" out of which any necessary repairs could be paid for, leaving the surplus (if any) to help towards expanding and upgrading (no easy feat these days!)

Obviously if we were to pursue such a course we would need to find out the names of reliable and competitive service engineers. Are there any that your readers know of?

Joe Gallagher, The Cyril Jackson Primary School, 51 Three Colt Street, Limehouse, London E14 8HH. Tel: 071 987 3737

At the moment I have no service agreements (all the computers at school are still under warranty) but it is something that concerns me. Two obvious possibilities are RM themselves and MSM (who advertise on the back cover). Does anyone have any experience of the quality of the service of these two companies or of any other company which offers to repair RM kit?

Please get in touch with either Joe Gallagher or me (Steve Rochford) if you can offer any advice.

If it seems too good to be true... it usually is. I think I've come across an exception, and believe it might be of interest to your readers.

For many years now, a team of altruists has been producing, refining and promoting a very low cost APL system. To my shame I must admit that I've never tried it myself — too many other irons in the fire — but I can vouch for the group's longevity, anyway. In addition to the software, they have produced a regular A5 journal to help users with ideas, a forum etc. Yes, this is APL as in the major IBM programming language. I won't do the full spiel, but let no reader dismiss the language as a quirky bit of fringe flotsam. It is unlike other languages I've seen, perhaps it would interest some readers for that reason alone?

Specific products are available for the IBM/Nimbus, Mac, BBC Master, BBC B with sideways RAM and Archimedes and the **most** expensive is just £11!

Send enquiries to Anthony Camacho, I-APL, 11 Auburn Road, Bristol, BS6 6LS.

I can claim to be a disinterested party, with some perspective of the computer scene (I teach computing). The people at I-APL have put in a lot of time and trouble, without seeking major remuneration. Their market is probably small but they have still earned some help.

Tom Boyd, Tangmere, Chichester.

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Technical Tips

Stephen Sharrad

In this brief section I hope to explain some more solutions to some problems which I have encountered or some suggestions which I have found useful when using RM equipment.

The Utility Board for the PC-186

A nice, convenient expansion board for your Nimbus to allow it to make coffee at your command? Unfortunately not. But it does offer several advantages for the PC-186 Nimbus.

Some of you will be familiar with the SETPC IBM emulator. This program is the replacement for the old IBMulator and new features are incorporated. (Like Microsoft Mouse Support,) - you may have tried them. But, as with the IBMulator, SETPC alone will not support IBM sound. And also, there are still some of those IBM programs which befit the requirements to run on a PC-186 (like must run in CGA,) which will still not run. Why? And how can this be solved?

Sound in IBM mode for the PC-186 requires the addition of the Utility Board. This means standard IBM sound can be produced. The Utility Board also deals with some Direct Hardware Access (DHA) routines which are used by IBM machines. These DHA routines are when the software controls the computers hardware directly, not using an interpreter, like DOS. These DHA routines can cause some IBM programs to crash - hence the need for the Utility Board, which will deal with most of these.

The Utility Board also has some effect on graphics in IBM mode, some are enhanced and others are changed. For example, games programs from Sierra automatically go into monochrome mode because of the Utility Board. Not so good. But some graphics are improved.

Another reason why your IBM software does not run correctly on your machine may be due to the Firmware version of your PC-186. Users of "re-styled" 102 key systems need not worry, but if you have an "old-style" 84 key machine, and the Firmware version is below 1.32D, then this might be another cause of your IBM software not running. Firmware versions 1.32D and above contain special IBM character sets, and these perform another step to better compatibility. Firmware Upgrades and the Utility Board are available from RM.

The Utility Board also has another few aspects, although they are not directly related to IBM mode. The Utility board contains a battery backed-up "Real time clock." This means that with inserting

```
DEVICE=CLOCK.SYS
```

in your CONFIG.SYS in the root directory of your system disk, then DOS, on boot-up, initiates the Time/Date settings from the Utility Board. Also an 8087 maths co-processor can be fitted to the Utility Board (or you can get the board with the 8087 already on it,) which will speed up many mathematical calculations (upto 25 times faster) as long as the software you are running is designed to use the 8087. The Utility Board, when used in conjunction with the Data Communications card, give fully asynchronous Serial Communications compatibility (including V22 protocols.)

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So, if you want better IBM compatibility, IBM sound, a real time clock, then the Utility Board is an option. A firmware upgrade might also be good.

Wasted Space

The cluster size is the minimum space a file uses. Here we are referring mostly to harddisks. The cluster size depends on how big the MS-DOS partition is (a partition is a whole or chunk of a harddisk. You can therefore have more than one partition (but only one DOS partition if using DOS 3.1) on a harddisk. These become individual drives.)

Size of harddisc or harddisc partition	Cluster Size
Upto 16 Megabyte	1 Kilobyte
16 to 32 Megabyte	2 Kilobyte
32 to 64 Megabyte	4 Kilobyte

So if you have a 32 Megabyte partition, according to the table, its cluster size will be 2K, meaning that each file uses at least 2K (or 2048 Bytes) of space. But, if you have a 40 Megabyte partition, the minimum file space of a file will be 4K. So, if you have a very large amount of 2K files, you can store more of them on a 32MB harddisk than 40MB partition. This is shown by this formula:

Maximum Number of files= Partition size/Cluster size.

Hence, in a 32MB partition, you could have 32000/2 (or 32MB/2K) or 16000 files if they were all 2K or less in size. In a 40MB partition, you could only have 40000/4 or 10000 2K or less files. These amounts of files cannot be stored in one directory (as there is a limit to the number of files one directory can hold,) but on the whole of the disk with as many directories as possible. (Don't forget, a directory entry also takes up file space, that of the cluster size of that partition.) Thus, there is much more wasted space on bigger harddisks with small files. Therefore owners of 40MB harddisks with hundreds of small files should reduce their partition size to 32MB. This can be done with the RM Harddisk Utility (on a PC-186) or with FDISK on other machines. Remember to back up all your files first, as changing the partition size destroys all data on the harddisk. After changing the partition size, you will need to format the new partition.

Secure Batch Files

If you are in charge of the computers at a school, you may find it useful to know how to secure a batch file. If, like me, you have setup computers for use around a school using Windows or some other application, and you find it is all too easy for unwanted people to get to DOS (and therefore your files) by pressing CTRL-BREAK or CTRL-C and terminating the batch job in the AUTOEXEC batch file, you may like to know how you can stop this happening. In the CONFIG.SYS on your system disk (or root directory of your harddisk) insert somewhere in it (it doesn't have to at the end) the line

```
SHELL=C:\COMMAND.COM /c x.xxx
```

Put in your own suitable drivename after SHELL, and your own filename (Batch, .EXE or .COM) for x.xxx. This will mean that after any other commands installed in the CONFIG.SYS, the file you specified is run through the COMMAND interpreter. If anybody tries to break out of the BAT file or application, (by pressing CTRL-C or CTRL-BREAK) the computer will lock up. Hackproof!

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Year 10 -Population Assessment
Geography G.C.S.E. Teacher Guided Assessment
POPULATION
To Move or Not to Move

The aims of this assessment are:-

- To examine the population problems facing INDONESIA.
- To investigate the effects of the Indonesian Government's plan of TRANSMIGRATION as a solution to these problems.
- To look at the wider issue of the decreasing numbers of tribal people on out world today.

Section 1: The Geographical Knowledge of Indonesia.

1. Describe the climate of the Islands, mentioning the temperature differences across the year, amounts and annual distribution of rainfall.

2. Outline the basic economy of the country under the following headings:-

- standards of living;
- farming;
- tourism.

10 Marks

Section 2: The Population Problems of Indonesia.

1 The aim of this section is to investigate the *variations* in population growth, density and structure across Indonesia.

Using an atlas, name on the outline map provided the main territories and islands of:-

Sumatra	Java	Bali	Kalimantan
Sulawesi	Irian Jaya	Nusa Tenggara	Timor

Also name the main cities of:-

Jakarta	Surabaya	Semarang
Bandung	Palembang	Ujungpandang

5 Marks

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2 Choose a suitable technique to show the variations in popluation densities of the Islands on the base map provided.

The population densities of people per square Km. are:-

Kalimantan	24	Java	786	Sulawesi	40	Nusa Tenggara	108
Sumatra	75	Bali	468	Timor	4.4	Irian Jaya	3.5

3 Write out the following cities in rank order according to their 1980 population statistics:-

Cities	**1971**	**1980**
Medan	635562	1378955
Banjarmasiri	281673	381286
Surabaya	1556255	2027913
Manado	170181	217159
Palembang	582961	787187
Jakarta	4579961	6503449
Bandung	1200380	1462637
Bandur Lampung	198986	284275
Ujungpandang	434766	709038
Semarang	646590	1026671

8 Marks

4 Draw suitable diagrams to illustrate the growth of Jakarta, Semerang and Surabaya in this period

7 Marks

5 By examining the map and other available figures describe:-

* How the overall pattern of population density varies across Indonesia, giving examples of important differences you notice.

* The variations in population growth in different areas of the country.

8 Marks

6. In the light of the above information describve the policy the government is putting into practise and assess how it works. (See Resource Sheet 2a).

4 Marks

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Section 3:- Worksheet on Indonesia using PCGLOBE

Name _____ Form _____

Having started **PCGLOBE** select the option **DATABASE** either with the mouse or by pressing the letter D. From the menu that is then displayed select option 3 **SELECT COUNTRY**. From the list of countries select **INDONESIA.**

Fill in the answers to the following questions.

1. TOTAL POPULATION

a) Complete the following bar graph for total population by including the estimate for the year 2000.

1 Mark

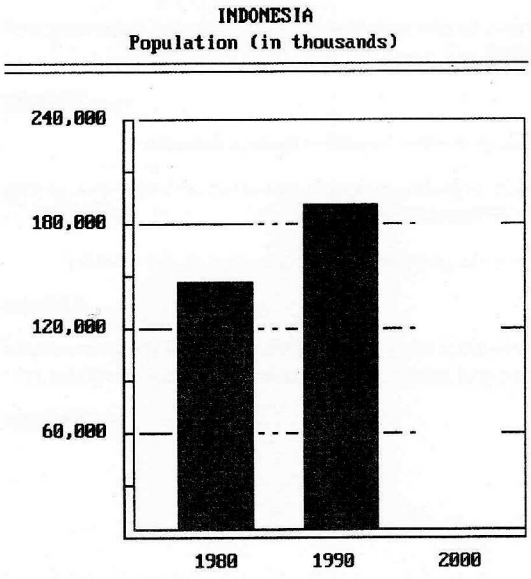
b) Fill in the totals at the top of each column, for 1980, 1990 and 2000.

1 Mark

c) Fill in the population doubling time?

What does *population doubling time* mean

1 Mark



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2. AGE DISTRIBUTION

a) On the diagram below draw in the details for the female members of Indonesia's population.

b) Fill in the life expectancy figures. **3 Marks**

c) Using the pyramid below and the pyramid in PCGLOBE for the United Kingdom fill in the following table comparing the percentage of the population in the three main age groups

INDONESIA
Age Distribution

Male			Female		
Age	% of Pop'n		% of Pop'n	Age
70+	0.8%		1.0%	70+
60-69	1.6%		1.8%	60-69
50-59	3.0%		3.3%	50-59
40-49	4.5%		4.8%	40-49
30-39	5.8%		6.0%	30-39
20-29	8.7%		8.7%	20-29
10-19	11.3%		11.0%	10-19
0-9	14.1%		13.6%	0-9

28,000 14,000 0 14,000 28,000
(in thousands)

- Total Population: 187,651,000
- Total Male Pop'n: 93,450,000
- Total Female Pop'n: 94,201,000
- Life Expectancy (Male): ___ years
- Life Expectancy (Female): ___ years

	Indonesia	United Kingdom
60+		
20-59		
0-19		

1½ Marks

3. HEALTH STATISTICS

a) What is the Crude Birth Rate?

b) What is the Crude Death Rate?

c) What is the rate of Infant Mortality? **1½ Marks**

4. By referring to the statistics you have looked at on PCGLOBE, and any other information source, explain why the Indonesian Government faces great difficulties in coping with its population. **5 Marks**

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Section 4 TRANSMIGRATION

Use your own methods of presentation to show the following viewpoints:-

- If you are a farmer living in Jakarta explain to your family the advantages of moving to Irian Jaya. (See resource sheets 2a and 3a.) **6 Marks**

- However having moved to Irian Jaya you might be very disillusioned by your new way of life. Explain the reasons for this attitude to your relatives back in Jakarta. (See resource sheets 2b, 3, 6 and 7.) **9 Marks**

Section 5

The Penan, the native people of Sarawak, part of the island of Borneo, are suffering from the invasion of their tribal lands.

1 By referring to videos and other information, describe their traditional way of life (habits, food, shelter etc.). **8 Marks**

2 Describe and explain the problems which have arisen for these people due to interference from the outside world **8 Marks**

3 Do you agree with what is happening? Give as many reasons as possible to justify your feelings. **4 Marks**

Section 6

From your own individual research, present a short report on a population issue of your choice which is affecting a country or area at the present time. you can choose various methods of doing this such as a taped spoken report, a poster, a desktop published report or any other account. **10 Marks**

The resources mentioned in the worksheet include the following:-

Articles

Transmigration in Indonesia - A story of limited success and unmitigated failure
Geographical Vol. 61 No. 5 May 1989. (G. Monbiot)
The Geographical Ltd., Hyde Park Publications, 27 Kensington Court. London W8 5DN

People Transplanted, Forests Uprooted
The Geographical Magazine Vol. LX, No. 7 Jul. 1988
Geographical Press Ltd., 27 Kensington Court. London W8 5DN

Indonesia - Two Worlds, Time Apart
National Geographic Vol. 175 No. 1 Jan. 1989
National Geographic Society, PO Box 2896, Washington DC, 20077-9960

Videos

Blowpipes and Bulldozers, Island of Mulu
Java
Studies in Geography 2 : Eddie Broadley & Richard Goring
Oliver & Boyd, Robert Stevenson House, 1-3 Baxter's Place, Leith Walk, Edinburgh EH1 3BB

Computer Software

PCGLOBE
Groliers Electronic Encyclopaedia
NERIS
All available from RM plc.

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Software Library

Sheila Maynard

Volume 14

Keith Whiddon has very kindly given his RM Net 3.0 Network Utilities Menu to the User Group Library. You probably saw it mentioned in his article in RM User Volume 6:5.

He has addressed the problem created for network users when they are excluded from DOS whilst maintaining control of their network access.

He has written a series of utilities, which cover most of the common DOS "house-keeping" tasks. The utilities are accessed from an RM blue menu, "NET3UTIL.MCD", which can in turn be called from the standard NET 3.0 "MENUONE.MCD". There are two versions of "NET3UTIL", one in PUBLIC for PC186's and one in XPUBLIC, for X and M series PC's.

The following utilities are available:

- Formatting high and low density disks in A:
- Listing files and deleting a file on floppy disk A:
- Copying a floppy disk in A:
- Listing files and deleting a file in user area N:
- Copying files from floppy in A: to N: and from N: to A:
- Selecting local or network printer
- Printing a list of files on N: or A:
- Setting the time and date

Volume 15

On this disc there are 7 sub-directories:

PKZIP contains the programs and documentation for compressing files into archives (called ZIPs) and then uncompressing them.

LHA contains a similar program (which many find better) which creates LZH archives. These are often smaller than the ZIP files.

PCBOSS is a simple directory and file manager. HELP! does the same thing rather better but won't cope with huge discs (or rather with discs having huge numbers of files).

SWEEP repeats the same command across every directory under the current one (excellent on a network; as network manager change to, say, M:\GDIRA and type SWEEP COPY N:\TEST.DOC to put a copy of the document from your user area into all group A users).

FILL lets you copy files from a hard disc onto floppies and will work out the best arrangement of files on the disc; good for backups because it uses the minimum number of discs.

SIMON is a memory resident text editor with WordStar compatible keys. It's absolutely excellent but this is the "review copy" which has a pop up box which nags you to buy the real thing every few minutes.

Volumes cost £5 each including a 3.5" disc. Contact:

Sheila Maynard, 7 Wood Drive, STEVENAGE, Herts, SG2 8PA.

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"Don't Panic" Mr Chips.

David Palmer

Dear Rmusers,

I believe I am not the only network manager to have the very strong feeling that this job is really "life in the fast lane". Not of course in the usual sense but in the sense that managing a network has a lot in common with trying to avoid very large, very fast objects over which you have no control. Or perhaps going at 75mph to overtake a system which is going at 65mph while there are big shiny bits of technolgy coming up behind you at anything up to 120mph.

I had hoped to write in a structured fashion but I just can't find/make the time so please excuse me if I default to a stream-of-consciousness form of communication. In brighter moments I find myself pondering on the possibilities of an Acronymic Pun competition (Punny Acronym ...) for the best use of IT in a phrase. "Go for IT", "If IT feels good then do IT" and others lead me to offerings like "How was IT for you?".

The previous edition of RMUG magazine ("You don't have to be R mug to work here but it helps if you are") languished for nearly 24 hours before I could read it. Is it just me or do you all find that there are more and more demands on your time? I always enjoy the magazine enormously. I once saw a super stage show where a wood full of demented souls was portrayed by having all the spare people backstage just behind a drop with a dark wood painted on it, all whispering lines in unison. It was very effective and when I read about others suffering the same problems it gives me the (not unpleasant) feeling of a large group of people just under the skin of the magazine all whispering (for example) "there is a corrupt file in your RAM cache". I may be imagining it but I am sure that this is happening more often. I am not methodical enough to keep a diary with enough detail to see if it is the case, but I am sure that it is a growing problem. In my network it happens most often with people going into Word Perfect (Disk Error 55) or into Windows (network error 88). Rebooting the server makes it all go away for a while. My Smartdrive is set at 6Mb and the server has about 9Mb of RAM altogether. It has never seemed to work as well as it did when it was set at 2Mb back in the era before Windows and a whole class could log on in seconds.

I would like to provide a recommendation for phoning RMUG for help. I think RM do a pretty fair job (although in a sexist sort of way I have noticed that the lady helpers are often more useful and say things like "I wonder why it should do anything like that?" whereas the men are all for action and say things like "Right go and do this") but they are technical experts rather than experts in the use of large warty networks. I have learned a lot from talking to RM but I have always solved problems faster by calling RMUG. I do feel that I should try RM first since they are paid to do it whereas RMUG are doing it out of team spirit (or something). Maybe RM should consider dedicating one phoneline to RMUG and working out some form of credit for RMUG based on the amount of usage that the line gets. As I write this it occurs to me that there is a flaw in the RM system in that there is no

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follow up on the solution to each problem. Often, it is not the offered solution that has worked for me but something similar which suggested itself to me as a next step. If this went back to RM and the solutions were collated in a database I believe the whole thing could go a lot faster and more efficiently.

Compuserve is great. I have started using it and I call a Leeds number and get patched through to the States. The options then are too enormous to list but the E-mail service (as well as the usual services you can send any text file to a fax too) is excellent and I like the news services where you can look at the last 48 hours headlines and get the stories for any that you select. I did this during the election and I (and most of our staff) were delighted to find that out of about 400 stories only 3 mentioned British politics. It was a very refreshing perspective on the news. You can also use a cutting service which will collect all the stories that mention certain keywords.

My first and second year students are using "Alarmco" which is a business simulation program from SPA. It is very popular and seems to be a good way of hitting a few attainment targets.

What an amazing month for the computer world. I am sure that everyone is aware of the falling prices but what is more interesting is the range of new products which are appearing. Apple who, for the frst time, have outsold the rest are energetically making alliances with everyone in sight. They are rumoured to be about to release an exciting pen operated computer made by Sharp and using Acorn RISC technology. There is a new form of memory called a flash card offering 20Mb of memory on a card about a third the size of a credit card and with no moving parts. This last feature is important since it means very low energy consumption. Possibly far more earth shattering is the emergence of CDTV. There are competing standards but if Philips take off there are great possibilities. One CD can hold an encyclopædia or high definition video games or a year's copies of the Times or ... Add an infra red keyboard and you have a product which could put the traditional home computer out of business. If I had shares in Amstrad or Atari I would try to swap them for shares in Philips or Sony. An American company claims to have a data compression package which can squash data by a factor of 10. Not bad, but then they claim that you can squash the same data by the same amount again and then again; up to 10 times. This could be very useful! You can buy a modem for an Apple which will also receive faxes and answer your phone and record voice messages. Now how about a printer which is also a photocopier and a scanner.

I would like to start a Heroes and Villains database. I would like to propose Sherston Software as heroes since they are extremely competent, charming and efficient. Hewlett Packard are the villains since they denied all knowledge of the Desk Writer C printer about 2 weeks before they released it which caused me to buy a Kodak 330C instead. When asked, they said that "Information like that could help our rivals" What about making someone buy a rival's printer?

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MathCAD 2.0 Student edition for only £29.95! This mathematical processor lets you write equations on screen as on paper then will perform the computations and even plot graphs from the output.

Statistics for Non-Statisticians (Blackwell Scientific Software). This Windows package contains a host of easy to use statistical tools ideal for senior school science etc. Modules include linear regression, t-tests, analysis of variance, Chi-squared etc. Normal price is £229.50 but to schools only £95.00! Leaflet/demo disk available.

Microsoft Works for Windows, Microsoft Publisher for Windows, Microsoft Visual BASIC etc. Edhitec can supply all Microsoft Educational products at their special Educational prices. For example, PC works for Windows or Publisher for Windows are £75 a single copy (£499 per 10 pack for Works). Send for leaflets.

NEW MCB NetLog for Windows. This Windows version of our popular network logging system records all RM (Net 2 or Net 3) network sessions with details such as time of log on/off, machine used, abnormal log offs, user id etc. then the Manager's program will report either the full data or extracted statistics such as machine usage, user log on, total/average time, and output to screen or printer or via CSV files for your own manipulation. Only £29.50 with **50% discount** for existing DOS MCB NetLog users. Demo disk/leaflet available. This package also includes the WHO program. A user executing WHO can see a list of users logged onto the network and via a manager's program the station ID can be given a text comment eg S-SMITH Physics Lab

PC Globe V4.0 The well known electronic atlas providing all those facts, figures and maps for over 190 countries. Only £34.00. Send for leaflet.

Arts & Letters. This is a feature packed and very powerful Windows drawing / designing package. The 5 user network pack has a RRP of £4455 so at £495.00 to schools this must be the best bargain we carry. If you send 3x3.5" 720k disks we can copy a working demo to them.

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To:- Edhitec. 7, Carlton Road, Harrogate, North Yorkshire. HG2 8DD

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The Times on CD ROM

Phillip Fox

The worksheet on the centre pages this month gives a set of questions which can be used with the Times 1991 CD ROM. The questions start by exploring the ways in which different sections of the newspaper can be selected and then try to develop skills in searching for multiple words. Finally there is an example of how the pictures can be viewed.

The retrieval software keeps getting better; it is now possible to search for words which must occur together, within a certain number of words of one another or in the same paragraph. This is extremely useful; with other software if you search for, for example, *Research Machines*, you will get any text that includes both words, not necessarily together, in the same story. It could, for example, be something about a research lab which has just installed some new coffee vending machines - absolutely useless if you want to know about a major British computer company!

Early discs for 1991 included some pictures and a separate program to view them. The last disc for 1991 includes the ability to go straight from a story to its linked picture (if one exists) as well as a picture viewer and the 1992 disc leaves out the picture viewer program and just lets you access the pictures directly from the relevant news items.

Incidentally, a network subscription to the Times on CD costs just £70 (for 16 users) more than the standalone version and is well worth it if you have a network CD ROM server. The program is extremely easy to use and install, even if you have no previous experience of using CDs on a network.

The pictures above (of Terry Waite) and on page 23 were imported from the Times 1991 CD. They are stored on disc as a 16 grey scale images but PageMaker copes badly with such pictures so they were imported into PaintShop Pro and dithered to black and white pictures; they look much better on screen than they do here.

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The Times

Q1 How many stories are there in The Times for the month of January?

Q2 How many stories are there from January 31st to July 31st?

Q3 How many stories featured the word **elephant**?

Q4 How many stories mentioned both **cruelty** and **animals**?

Q5 One of the stories mentioned in the last search especially refers to elephants. On what date was the story printed?

Q6 How many of the stories in the **Home news** section mention **Mrs Thatcher?**

Q7 What profit did **Research Machines** make in 1990?

Q8 Which **Birmingham** company was involved in the **Iraq Supergun** affair?

Q9 How many reports had a **by-line** saying they were from **Addis Ababa**?

Q10 Which **feature article** was included in the Times on the **13th of August** which involved a discussion of age?

Q11 What is the connection between **BCCI** and a **fishing rod**?

Q12 What happened to **Amstrad shares** on the 3rd of October?

Q13 **Building Societies** have often grown as the result of a **merger.** How many building societies were there in 1910, according to the **feature article** in the Sunday Times of 10th November?

Q14 Where did Freddy Mercury take his friends to celebrate his 41st birthday?

Q15 Which **trout stream** was running with recycled water because of the **drought** last year?

One of the extra features available on the PC286 and PC386 is the option to view some of the pictures that are stored on the CD ROM. This question allows you to see how the link is shown between stories and pictures.

Q16 There is a picture that accompanies the story written in the Times on the **9th of October** about the **RHS**. What does the picture show and what is the RHS?

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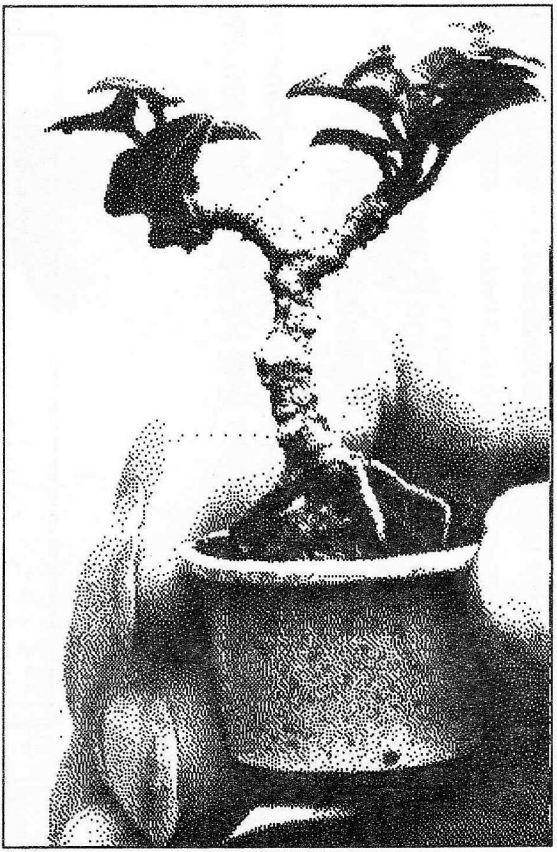
Read the Times of 9 October 1991 to find out what this is!



CD ROM

Copyright in the pictures used here belongs to the Times and is acknowledged.

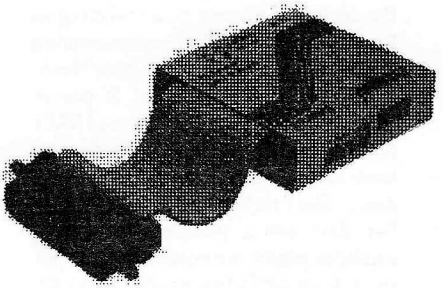
Getting it to the Printers

By John Williams

Your Editor and I occasionally take pity on BT and make a generous contribution towards their profits. During a recent conversation the subject of the cost of the, yet to be released, station printing module for RM Net LM. came to the fore. I mentioned the availability of a number line drivers and protocol converters that can be used as an alternative to using the network. For the benefit of Steve, and anyone else who might be interested I have gathered the following information. The items shown are from the MISCO catalogue. Please don't take this as implying that they are the only suppliers, or that I prefer their products. Many companies offer the same things with their own badges stuck on. Shop around for the best price. The MISCO catalogue just happened to have the best pictures for scanning!

If your need is simply for a second printer, some way from the server, you have probably already got a spare port to which it can be connected, COM1. For a remote printer working from the serial port, you can either use a serial printer, or a parallel printer with a serial to parallel converter. The serial printer sounds the easiest option, but it's odds on that if you can get the printer you want in serial version it will cost more than the parallel model plus the cost of a converter. (Discount dealers can't be bothered with awkward customers who want a special version).

A serial to parallel converter is a small, usually metal, box with a serial plug on one side and a centronics socket on the other. It will probably have a jack socket somewhere to introduce a power supply into it, and like all serial devices it will have a bank of dip switches to let you set Baud Rate and Parity. Just to be different the one in the picture has a length of ribbon Serial /Parallel Converter cable with a printer plug on the end of it.



Prices start at around £70

You will almost certainly have to make up your own serial cable as ready made ones are never very long and you will find it difficult to get the connectors through intervening doorways etc. Making your own will also avoid the cost of a 9 to 25 pin converter on the back of the server.

If you feel handy with a soldering iron this is the cable to make.

9 Pin DIN (Server)	25 Pin DIN (Converter)
2	2
3	3
8	4
7	5
4	6
5	7
6	20

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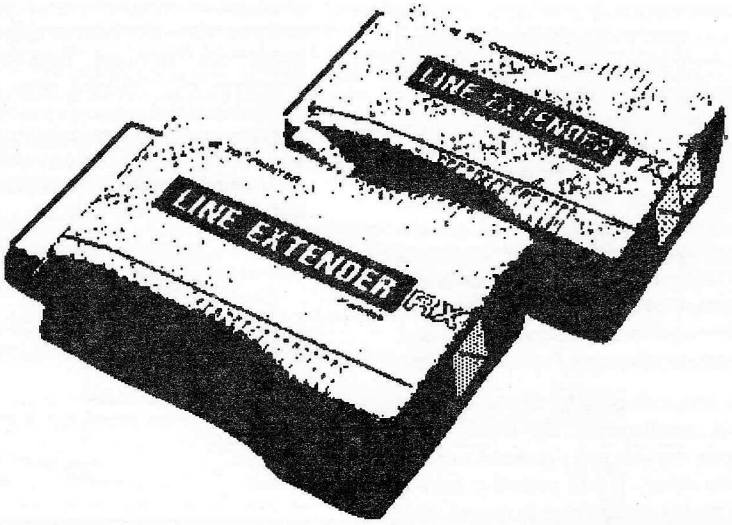
You will also need a mode command in the server's autoexec file to set up COM1 to match the settings you put on the dip switches on the converter. I'm afraid this could be an article in itself so if you get this far and still want to try, my number is in the back of the book.

I've just heard someone mutter about having their laser printer on COM1 and a spare parallel port on the back of the server. This can be a real drag as the longest printer cable recommended is about 5 metres and it is very thick, not to mention expensive. If you're fortunate enough to have one of RM's new Systembase towers you might even have two parallel ports waiting to be used. Fear not, flooding in from the Far East are a plethora of plug-in modules which can connect the output of LPT1 or LPT2 to a printer up to 300 metres away

The picture might just give you an idea of what they look like. The lighter patches on the right of each module are RJ11 sockets, identical to those used on the PC186 Piconet system. The transmitter and receiver are connected by 4 wire telephone type cable with one of these plugs at each end. In the ones in the picture the transmitter has two RJ11 sockets. If you don't have the tools to make these up, the standard lengths supplied can always be cut and joined using the sort of junction box sold by Woolies for telephone cabling.

If you are using a very long length of cable you may need to add a power supply at the transmitter. Each module has a socket for this, but normally draws its power from the device to which it is connected.

If you have a small cluster of computers too far from the server or you want to take the load off the server's spooler queue, a shared local printer might be worth considering. This is why the transmitter in the picture has two RJ11 sockets. Up to 16 transmitters



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can be daisy-chained to one receiver and used instead of a smart-switch. A receiver costs about £70 and transmitters about £40. For a cluster of four computers this will cost about the same as a smart switch plus 4 long printer cables, and you won't have problems with inch thick cables. These units are even easier to use than the serial/parallel converter; we just plugged ours in and started using them.

One word of caution, however, don't think that you can by-pass the server and put 16 users on to one printer. There is no queuing system, its first come first served. I wouldn't recommend more than 6 users sharing a printer in this way, and even they might welcome a half megabyte buffer at the printer.

P.S. Has anyone out there tried getting a scanned image into Word for Windows 2? The first two I used were good well toned images when captured and saved as TIF files. Winword turned them into black blobs. I spent a lot of time scanning different pictures until I found two that printed OK. Even these needed to be saved as PCX files and touched-up in Paintbrush.

And thereby hangs a tale.. John sent me this article as a Word 2 document which is fine, I have Word 2 but for perverse reasons I put the magazine together in PageMaker version 3 which wants nothing to do with any version of Word for Windows and certainly won't touch embedded drawings in a file (the simple way to take any object from one Windows program to another is to copy it to the clipboard and then paste it into the other program; PageMaker failed with an "image too complex to paste" error.)

Fortunately, he also sent me one of the images as a PCX file but it was too big to fit on the page. A bit of work with PaintShop Pro (an excellent shareware program for image editing) got me to the point where the first image was a good size and on the page. The second image was not on the disc but this time I was able to copy and paste it, using PageMaker's crop tool to get it to a reasonable size.

Micro Mart

PC186 Machines for Sale

6 PC186 machines for sale either separately or together. In limited use since 1986. Currently used on Net 3.1

Two machines have 720kb floppy drives (one recently upgraded and hardly used) All have Z Net cards (cabling included) and there are two server cards. Two are fitted with an additional parallel printer port. Colour Monitors are included with each and all have 1Mb of RAM.

1 RMX16 with 30Mb hard drive and 720kb floppy drive, 2Mb of RAM

Offers, please. (the best reasonable offer secures - all offers considered in order of receipt)

John Lawrenson at Atlantic College, St Donats Castle, Llantwit Major, South Glam CF6 9WF. Tel: 0446 792379 (college) or 0446 793068 (home)

The Great Grey Elephant in the Corner

Mary Mabey

Have you recently bought a RM computer through the Parent/Teacher scheme? If so, are you now sitting with it in a cardboard box because you're terrified by the beast which bears no resemblence to the machine used by your child at school? Take courage, help is at hand! I am not a computer expert but I own a RM PC386 with which I have a "love /hate " relationship. I am a chartered librarian not a computer boffin so I know exactly how daft you can feel when things go wrong and you can't cope.

The initial reaction to a 386 can be one of utter consternation. At great personal expense you have acquired the same machine as the class uses in school and after much effort the whole splendid grey plastic machine is set up and switched on. Your child stares at it in disbelief. "Mum, what's that? Our computer at school doesn't look like that! Where's Smile? That's no good." He stamps off to watch the television instead and you are left to stare at the C: prompt feeling utterly demoralised. You may try to understand how to get into this magic new programme called "Windows" but a few minutes with this leaves you trembling as the delightful little pictures shrink away under your inexpert hands. You switch off and vow to read the 3" thick manual that came with the machine but several days later you are suffering from an advanced case of "Jargonese," the Windows screen is completely blank and your child has abandoned all interest in your expensive new toy. An exaggeration perhaps, but probably quite close to the initial situation for many home purchasers.

The problem is that in school most machines are networked with appropriate educational software available at the touch of a button whereas the home computer comes with a collection of programmes normally used in offices. Any other programmes have to be purchased and installed by the user. This requires expertise in installation proceedures, knowing which software to buy and where to get it! Even class teachers are not expected to cope with all this.. they just call for the IT coordinator!

Below are 3 basic programmes which younger pupils often use in schools and which you will find a good additional investment.

The "Smile" programme referred to above is a suite of Maths programmes covering the upper Junior and lower Secondary syllabus in a set of "games" such as snooker, darts, taxi or a maze which make learning mathematical concepts enormous fun. They are both educational and addictive so be warned! (each of the 3 programmes costs £25 plus VAT and comes with a booklet)

A good package for very young children is FIND SPOT, based on the book character of the same name. There are two levels of mathematical puzzles set within the framework of searching for Spot. The graphics and animation are excellent. I have also used this with secondary pupils with learning difficulties and refugees with little command of English. It has been a winner with all of these groups. It is an ideal introduction to using a computer for a 5-8 year old offering both

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mathematical and language skills. The danger with all computer assisted learning is that the "game" element can over-ride the educational value if the child is not supervised by an adult or older child. Spot is the ideal vehicle for a parent who has never used a computer before to pick up elementary "mouse" control and computer confidence under the guise of helping, without feeling stupid! (£22 plus VAT.. more titles in the pipeline later this year)

Another excellent language programme is "Through the dragon's eye," a magical adventure game for Junior pupils (or lower secondary pupils with learning difficulties). This programme requires some reading skills to unravel the many word and number games encountered in the quest to restore the magic kingdom of Pelamer. This programme was originally written for the BBC and is not mouse driven . It has bright clear colours, good animation and is very popular. I might add that the Head of English and I were completely foxed by one of the puzzles and had to seek assistance from Year7 pupils. (£22 plus VAT including booklet)

All of the above are available from ILECC who also publish a guide to Windows called "Opening Windows" (£6) which is excellent value - only 2cm thick and entirely readable. There are a couple of very easy "step by step" guides to PC186 (single disk drive) and PC286/386 (hard disk) which I wrote to help class teachers cope with their first faltering steps in using computers. They are aimed at absolute novices, in simple English and really thin! Copies are £1.50 to cover postage and photocopying.

I should like to hear from any home users with ideas, suggestions, problems etc. and will do my best to help. Librarians may be interested to know that I run a CD-ROM Users group which sends out regular reviews and organises training sessions.

Mrs Mary Mabey
Library Resource Services Manager
Bacon's College
Timber Pond Road
London
SE16 1AG

Home Tel. 081 698 7573

ILECC
Sales Department
John Ruskin St
London
SE5 OPQ
Tel 071 735 9123

Many thanks to Mary for her ideas and her offer of help. If you have just started using a computer at home and would like to share your experiences with other users then do get in touch. You can either write to me (Steve Rochford) at 46 Ollgar Close, Shepherd's Bush, London W12 0NG or phone me on 081 740 5642 if you just want to talk about what you have done.

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Windows Twice? You Must Be Joking!

John Williams

We have just taken delivery of a large mono screen to use with our M series DTP system. Reading the upgrade instructions I came upon a line which nearly made me explode. The implication was that if we wanted to swap between using the VGA colour monitor and the high res mono monitor then we must have two copies of Windows 3.0 on the winchester.

This just couldn't be done, we needed some space for Pagemaker and some more for the odd bit of work that the operator might do. The challenge was set. It had to be possible to reconfigure Windows with a .BAT file to change around a the files which configured Windows.

In the end the solution was even easier. The choice of the display driver is controlled by one line in the \WINDOWS\SYSTEM.INI file. If you have a VGA monitor the line says:

DISPLAY.DRV=VGA.DRV.

If you want to use a mono monitor it needs to say:

DISPLAY.DRV=RMHRMONO.DRV

Creating a system to swap from one to the other was easy.

First I installed the hardware and the RMMOB.SYS file as per the instructions, then altered config.sys file as suggested.

Next I loaded the SYSTEM.INI file into Notepad and re-saved it as SYSTEM.VGA.

Then I altered the display.drv line as above and re-saved it as SYSTEM.MON.

Finally I created MONO.BAT as follows:

```
@ECHO OFF
COPY C:\WINDOWS\SYSTEM.MON
C:\WINDOWS\SYSTEM.INI
REM if you have a WIN.BAT file
REM then type CALL WIN in place
REM of the next line.
WIN
COPY C:\WINDOWS\SYSTEM.VGA
C:\WINDOWS\SYSTEM.INI
REM Copy is safer than
REM renaming.  In the event of
REM a power failure
REM both files are still there.
REM Run Mono to sort it out.
CLS
```

Running MONO.BAT restarts Windows. The title screen appears on the VGA monitor, which then blanks and the program manager appears on the mono screen. Exiting Windows again returns you to the DOS prompt on the VGA screen. WIN starts Windows in VGA.

Micro Mart

Wanted

One or more copies of: *A complete GCSE Computer Studies* by M Amor & J Fairhurst, published by Stanley Thornes Ltd.

I will pay any reasonable price for any quantity.

Please phone Maureen Laffey on 0494-535196 ext 263 (school) or 0734-666130 (home) if you have **any** copies of this book which you no longer need.

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Introducing CD ROM to Geoffrey Chaucer School

Mary Mabey

Geoffrey Chaucer School is a multi-racial, inner- city school of 730 pupils aged 11-16. The library has strong links with three feeder primary schools which make weekly visits to use the library facilities including the 5 station Nimbus network, LIBRIS library system and 2 standalone CD-ROM in addition to the traditional book resources.

The two CD Drives, both Hitachi, are run in standalone with RM PC286's PC40. The first was a gift from the London Docklands project and included a free subscription to NERIS. To this we added the Guardian, taking advantage of the introductory offer giving the 1990 database free to new subscribers. I also ordered a second drive from RM in April which finally arrived in mid September. By the time it arrived RM had changed the "bundle" of software offered and also the specification of the Hitachi Drive. The new 1700 is faster and has a caddy to introduce the disks into the machine. This is a great improvement over the previous system where enormous care has to be exercised when changing disks which are not protected.

Getting Started

I am myself a Chartered Librarian and Music graduate with no formal computer training so I should here like to include a few words of warning on setting up CD-ROMs! It is far more complicated and frustrating than you would expect from the advertisements.. or at least, it is if you use RM plus Hitachi Drives. First one needs a PC 286 with a spare expansion slot or you cannot install the CD-ROM Card. This is a relatively easy task for the practically minded but probably best left to the local IT Support Centre if you can afford it. Herewith a little known hidden cost of introducing CD-ROM. (I was quoted £42 for this by ILECC as this service was not covered by the normal LEA maintenance contract.)

We decided to buy a second CD-ROM drive; this time from RM who were offering "bundles" of software with the appropriate supporting drive and card for a PC286. We expected to do a trial run in the summer holidays to phase it into the curriculum. I envisaged a trouble-free installation. This proved a somewhat misguided assumption as the carefully chosen "bundle" ordered in April went through a number of changes and finally arrived in school 2 weeks into the new term! ILECC installed the CD-ROM card into my PC286 and sent the Drive back to school. I carefully followed RM's instructions, installed their software onto the computer (to reallocate memory) and then installed the three programmes; The World Atlas, Grolier's Encyclopaedia and Library of the Future. It all seemed so easy and I sat back enormously pleased with myself to try out Grolier...after all I'd done this all on my own!

The euphoria was short-lived. The keyboard locked itself several times and I had to reboot the whole system. Then there were such strange things happening. I had some pupils with me and we set up a search to look at birds. This proved hilarious. Even allowing for the American origins of the data, surely a "robin" shouldn't produce a picture of a snarling, black, furry, wild dog! Not a wing in sight! There were other interesting crossed pictures such

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as fish with wings but I soon realised that there was a memory problem and spent a week trying to sort this out. I finally gave up and sent it all to ILECC as I did not feel that a librarians' job description quite covers this sort of task. A week later ILECC managed to get some new software from RM which was supposed to sort out these problems. Grolier seems cured but The Atlas of the World is quite interesting. It seems to default permanently into January rainfall when asked for July rainfall or precipitation. A dim image momentarily shows and then slips away, only to be replaced by guess what? January rainfall! So much for getting started. Obviously to succeed you need a lot of determination, a fair amount of computer knowledge and some outside help.

Despite these setbacks I am very pleased with the way that staff and pupils are using this medium. Below I shall detail some of the use made so far.

NERIS

Freed from the financial constraints of NERIS on-line I find that staff and pupils are using this freely throughout the day. No longer forced to refine search techniques because of telephone charges staff can browse in wider areas and discover material on related topics. They particularly value the long textual articles which can be downloaded to the printer. For once the librarian can satisfy the demand for immediate provision of material on a wide range of educational topics for those teachers who leave their research to the last minute. NERIS is also being used by the local social workers and the RE Advisory teacher who have "discovered" it when visiting the school. The searching seems very user friendly and is mouse supported in a Windows. I give little support to staff after the initial introduction and occasional suggestion of search strategy. In many cases the printing out is left to some of my library helpers who enjoy this rather tedious part of the operation.

Virtually all departments have used NERIS for such diverse information as drugs, solvent abuse, sporting association addresses, numeracy for adults, material on educational opportunities in the EEC... The list is as diverse as it is long. The pupils also make searches and have found information with little trouble on various topics. Even my Yr 5/6 from the local primary school were delighted to find text printed in Irish, Welsh, Spanish etc which they introduced into a cross-curricular project on language.

My main criticism of the effectiveness of NERIS is the amount of paper that the printer consumes. Both staff and pupils insist on a "print-out" in precisely the same way as they previously asked for photocopies. A little user education is obviously needed in this quarter!

The Times and Sunday Times

This has a really clear, user friendly search menu. Apart from searches by headline and key word there is the chance to use the "By-line" option. This is an extra reference given to articles which are on the same subject although this would not be obvious from a "Headline" search. eg "Lockerbie air crash." A new development is the chance to search for two words adjacent to each other as well as within 10 words of each other. This would prevent the following result of a search which I made on *reading speed*; "magistrates at Reading fined a man for exceeding

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the speed limit!" I gather that the references to "John" and "major" in close proximity had raised literally thousands of mismatches so we owe this new development to the Prime Minister. It is possible to refine searches either by widening them with "and", or using "or" to broaden the search. At present the TES is not included in the database which is a shame as it would be an excellent source of up-to-date information for schools. I gather that the TES will eventually be included but at present is produced by outmoded technology which would

Grolier's Encyclopeadia

This is an American encyclopaedia with all the disadvantages that this entails for a British library. I have the old version (1990) which does not have mouse support or sound. I find this very frustrating- a bar menu windows-type environment and only keyboard operation. I would urge anybody considering the purchase of Grolier to look very carefully at the wording of any advertisement so that they can acquire the 1991 version which has sound and mouse support. Despite this, pupils soon overcome the keyboard search routines although they stay far longer with the mouse driven CD's. I suspect that this is because they are inherently very lazy and Windows plus mouse is the ultimate in easy searching.

In Grolier the volume of material thrown up by a keyword search is daunting so this particular tool needs more user education to be wholly successful. It is used principally for historical, biographical and scientific searches although the local primary school found it very helpful for their language project despite the problem of using an information tool aimed at adults. Few of them would have stayed so long researching the same information in the Encyclopaedia Britannica. No doubt this is due to the delightful colours of the screen text, the full screen colour pictures which support many articles and ..... the ability to download information to a printer!

I found that the popularity of this disk increased with familiarity and it is now the first port of call for most homework. Boys frequently call up pictures of cars and space travel and those who cannot spell browse through the "Browse Word" index to locate the correct (American!) spelling. This also helps a little to overcome the problems of English/American terminology.

LIBRARY OF THE FUTURE

This first edition of Library of the Future contains the full text of 450 titles ranging from Shakespeare and the Bible to Magna Carta. This also came via the RM bundle and has since been replaced by a more comprehensive upgrade containing 750 titles. It works in a Windows environment without mouse support. Searching is possible by author, title, words or phrases. Punctuation and upper/lower case are ignored.

The biggest problem is in overcoming the reluctance of staff to deal with literature on disk instead of the printed page. Articles by Aristophanes, Boccaccio, Marx, and the historical texts of Magna Carta, American Declaration of Independence etc could be used by the history department. The religious documents could be integrated into RE. So far I have hardly used this disk and few pupils have returned for a second session. This is a learned disk as opposed to the "coffee table" Atlas of the World.

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ECCTIS

This is a database of courses available in this country. I use it in conjunction with the ILECC "Jobfile Explorer" and the two items have rejuvenated my careers section. I no longer keep huge quantities of booklets and prospectuses but make pupils send off for their own after searching for details on ECCTIS. The searching is via a clear main menu which offers a choice of options. Within each option there are sub menus allowing the database to be searched by subject, length of course, type of course, type of qualification etc. It is very comprehensive and flexible. My main objection is that Print is activated by "R" which seems completely unfriendly! Sureley "P" is the logical choice and the "Previous screen" should be activated by "R?" I find the CD-ROM version ideal for our needs. We have no sixth form so the September course vacancies on the on-line version do not concern us.

What next?

It is no good adding disks blindly to stock without a clear educational strategy for their use or I shall end up with pupils doing nothing better than browsing through the World Atlas as they would normally treat a pop magazine. My priority now is to map how each individual disk can be used across the curriculum in collaboration with the teaching staff. This is vital to make sure that the medium is fully exploited as a curricular resource. The ideal location for CD-ROM is definitely the Library / Resource Centre where it can resource the entire curriculum. Hopefully a school policy on information skills and the cross curricular use of CD-ROMs will be formulated in the next few months.

Conclusion

As a librarian I am delighted with CD-ROM as a storage medium. No more problems with bulky piles of disintegrating newspapers perpetually getting out of order. No more backache caused by lifting an overweight volume of an encyclopaedia from the top shelf. The small silver disc is an answer to a librarian's prayer both for its physical size and its enormous powers of information retrieval. It appeals to even the least motivated pupils, satisfies N. Curriculum requirements on information handling and computer awareness, is easy to use and far cheaper than on-line databases. There remains one further concern on security. In any school a small silver CD ROM is very attractive and easy to pocket from a standalone machine without a lock. Security dictates that the librarian has to be forever vigilant both for attempted theft and possible damage by pupils removing disks from the drive. CD-ROMs are also relatively expensive and as I have shown above they are still undergoing rapid improvements. There is as yet no encyclopaedia of science /technology. This is an area very badly served in most encyclopaedias and frequently consists of out of date information.

Despite all reservations expressed above, I am delighted with the wholehearted acceptance and use of CD-ROM by the pupils and staff at Geoffrey Chaucer. Perhaps the proof of success is the following conversation with some Year 7 pupils;" No not THAT Atlas Miss. That's boring. I meant the COMPUTER ATLAS. You know the one. It's much more fun."

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Hints and Tips

CONFIG.SYS in DOS 5

All recently delivered standalone PC386 machines have DOS 5 installed but it is not necessarily set up in the way which will give you access to the most memory. DOS 5 has the ability to load most of itself into upper memory, freeing more of the memory below 640k for use by your programs. The manual that comes with the machine does document what to do, if you know where to look but for those of you who haven't found it, this is the answer.

Start your machine and load CONFIG.SYS into either Edit or Notepad. (If the machine starts up leaving you looking at a C:\> prompt then type EDIT C:\CONFIG.SYS; if it loads straight into Windows then double click on Notepad then use File Open and give the file name C:\CONFIG.SYS); you should see a file something like this.

```
rem This configuration is
suitable for both IBM and PC-
186 mode software.
rem It is intended for use with
Windows 3 in Standard and
Enhanced mode.
rem PC-286/386
files=30
buffers=20
stacks=0,0
device=\sys\signon.sys
device=\sys\himem.sys
country=44,437,\sys\country.sys
device=\sys\rm.sys
device=\sys\rmnimbus.sys
device=\sys\rmdevice.sys
device=\dos\setver.exe
```

You need to add the line

```
dos=high
```

immediately before files=30 and then save the file. This will make available some more base memory for DOS programs to use (some games in particular need every last byte they can get!)

On your system disc you will find a set of example CONFIG files called CONFIGnn.LIB, where nn is a number from 00 upwards, saved in the SYS directory. To look at these use File Open in either Edit or Notepad and give the name A:\SYS\CONFIG01.LIB (or whichever file you want to see) and read the comments at the start. The files are set up for different ways of using your machine. If you decide that you really want to use file 03 as CONFIG.SYS then get it on the screen, choose File Save As and give the name C:\CONFIG.SYS. You will need to restart your computer for any changes to take effect.

Note that you should not make any changes to your master disc; if anything goes wrong then this will be your "rescue disc" but if you change it then you may be in problems.

SMARTDRV.SYS

Smart Drive is a disc-cache program included with DOS 5 and with Windows 3. In CONFIG.SYS you should find a line something like:

```
device=c:\sys\smartdrv.sys 1024
512
```

which specifies that a maximum of 1024kb of memory and a minimum of 512 will be used by Smart Drive to cache disc reads. If you never use DOS applications from within Windows then delete the 512 to make this memory available to Windows. Conversely, if you use programs like dBASE from within Windows and access large datafiles then increasing the 512 may speed them up.

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Windows 3.1 has a totally new version of Smart Drive which also caches disc writes; this has the benefit that saving work is speeded up but the disadvantage that if you switch off your machine before the cache is written to disc (or something goes wrong) then you could lose data. On the whole I think it's worth having and I've had no problems so far.

TEMP directories on the network

When Windows is run by a user for the first time, a TEMP directory is created for them and this is used to store any temporary files that Windows applications may create. The problem is that if you have many users then you will also have many TEMP directories, taking up a large amount of space. (Stephen Sharrad's article on page 11 points out that the minimum cluster size on a large Winchester is 4k; this is also the size of an *empty* directory). I have created a series of directories on the server (one for each station) whose names are of the form C:\WINTEMP\nnn where nnn is the station number. Lines are added to GENERAL.SHR like this:

```
share 163=c:\wintemp\163 /rwcda
```

giving one for each station. Near the start of the Windows file (before the line concerning TEMP) add

```
use y: /d > nul
use y: \\%server%\%addr% > nul
```

and change the line which sets TEMP to:

```
if $%TEMP%==$ set TEMP=y:\
```

Finally, at the end of the batch file, add the line:

```
use y: /d > nul
```

Re-start the server so that the new directories are shared and that's it. You can now remove all the TEMP directories from each user and watch the space come back. Better still, all the TMP files will be created in just a few directories; at the end of the day (with no-one logged on) just type:

```
rmtree del c:\wintemp\*.tmp /r
/h /e
```

to get rid of all TMP files, including the hidden and read-only ones but leave the empty directories alone.

If you are worried about the security aspect of this then the only thing that could cause problems is if someone makes a connection to one of these directories and starts trying to delete files when another user is working. To prevent this, don't allow users to access DOS or Windows File Manager and they cannot then make connections to another drive.

If you use Word for Windows and find that the spell checker won't let you add words then it may be because you haven't told it where to add the words. In the options section of the spell check you can give a file name for the dictionary. On a network you **must** give the filename with an N: eg N:SPECIALS.DIC, otherwise it won't work and you must give this filename on each session.

If you find that the screen display in a Windows application does not look the way you expect then it may be because you have not selected the correct printer. For example, if you load Word, select a PostScript printer, type some work and save it then come back to it and try editing it without selecting the same printer then the text will be all over the place.

Windows 3.1 seems to handle this better (and if you use True Type fonts it is **much** better) and Word 2 is better than Word 1 at substituting fonts with those that the printer can print.

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Cambridge Information Technology

Steve Rochford

Cambridge Information Technology is a scheme which awards certificates to show that students have mastered a series of relevant skills and completed an assignment using those skills. The skills are tested in a number of areas; word processing, spreadsheets and so on. The particular advantage of CIT is that it does not attempt to assess a student's proficiency in a particular package and does not set exams so it is easily used in any institution, no matter what hardware or software they may be using. (It is, in fact, used by schools and businesses in the UK and in many other countries of the world; the handbook lists countries from Argentina to Zimbabwe).

The CIT handbook sums up the process as: *Routine Skills + Constructive Use —> CIT Certificate* . Initially, certificates are awarded in single modules but for candidates who gain certificates in any 5 modules there is a further certificate, the Certificate in Information Technology. Given that it is recommended that a minimum of 25 hours of work, spread over a considerable time, is devoted to building the skills for one certificate, this extra certificate recognises a considerable level of work and achievement.

One of the criticisms of internally assessed courses is that they are open to abuse; if I just have to tick a list to say that a pupil has achieved a skill there is the possibility that I will just tick every box without really checking for competency. To prevent this, only accredited centres may offer CIT and all the final assignments are checked by UCLES before the certificate is awarded. Centres must also apply for re-accreditation on a yearly basis, thus making sure that standards do not slip.

One of the best features of CIT is that the final assignment does not need to be a specially produced piece of work. If a pupil is, for example, taking Geography GCSE and uses a word processor to report on their fieldwork then it is likely that this report will be acceptable for the assignment, provided that a suitable range of techniques have been used in its production. (The techniques referred to in the word processing module include such things as choice of font, use of centring, adding headers and page numbers, using special symbols, line drawing, columns and so on; all quite normal skills).

As assessor you are expected to check candidates' work but not to explicitly mark it; the manual says you can offer comments like "Have you checked the spacing?" or "I think there are some mistakes on page 3". This then leaves the candidate to find the errors for themselves, which again makes them think more about what they are doing and, hopefully, leads to better work in the future.

Currently there are about 20 modules available but this list grows regularly. The standard IT components are there with some interesting extras; Music Technology and Laboratory Applications, for example.

In conclusion, I think that any centre wishing to recognise the skills that their candidates develop in IT should look very seriously at this course.

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Communications

I welcome submissions for the magazine from anyone. You don't have to be a great writer to send something in; send a letter or a short tip for the Hints and Tips pages, everything is welcome. If you want to phone and talk something over then please do; even if you aren't sure how to write something down then I can always include your ideas in Hints and Tips or as a plea for help.

I would be particularly pleased to hear from the people who are using RM computers at home; there are quite a lot of you out there. Some of you will be experienced at working with computers and I would be interested to know why you chose RM for home use. Others will have responded to RM's advertising, perhaps because your children use the same computers at school. How are you getting on with your new machine? Did you have any problems getting started? It doesn't matter if you still don't know the answer to the problem- this is how you'll find out - and it doesn't matter if you think that your problem was trivial; remember that there are many other people who are going to be in exactly the same position as you and will welcome the help that you can give.

If you are writing for me then the ideal is to send me a disc produced using Word or Word for Windows but I can cope with any word processor that runs on a Nimbus (I think). If what you are sending is short then a letter on good old fashioned paper is fine.

Finally, we pay for published articles at the rate of £5 per printed page (although all payments are at the Editor's discretion).

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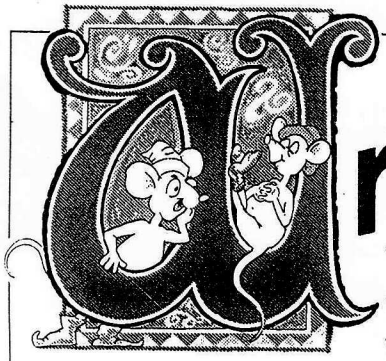

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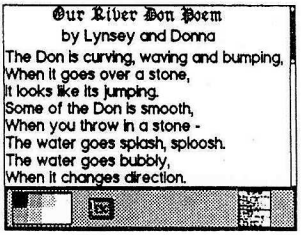
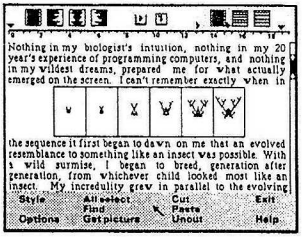

Our River Don Poem
by Lynsey and Donna
The Don is curving, waving and bumping,
When it goes over a stone,
It looks like its jumping.
Some of the Don is smooth,
When you throw in a stone -
The water goes splash, splooosh.
The water goes bubbly,
When it changes direction.

For more advanced users . . .


Nothing in my biologist's intuition, nothing in my 20 year's experience of programming computers, and nothing in my wildest dreams, prepared me for what actually emerged on the screen. I can't remember exactly when in
the sequence it first began to dawn on me that an evolved resemblance to something like an insect was possible. With a wild surmise, I began to breed, generation after generation, from whichever child looked most like an insect. My incredulity grew in parallel to the evolving
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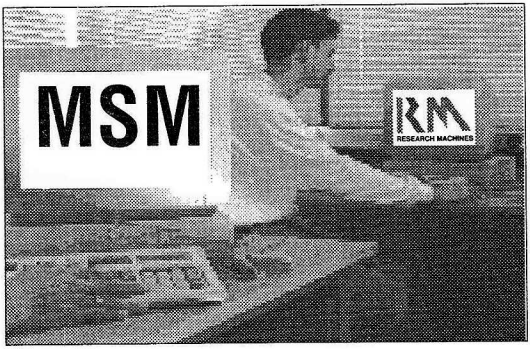

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